FLORA OF THE WOLF ISLANDS PART III: THE MARINE ALGAE

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The vascular plants of the Wolf Islands have been investigated thoroughly by A. R. Hodgdon and R. B. Pike (Rhodora, **65**:82-96, 364-365, 1963; **66**:61-62, 140-155, 413-416, 1964; **71**:297-302, 1969). At their suggestion we have undertaken a floristic study of the marine algae of these islands.

We have made three visits (4 June and 13 August, 1968 and 22 February, 1969) to South Wolf Island, as it affords the most accessible intertidal regions. Numerous small coves offer a variety of protected habitats. However, most of the coast is exposed. There is a great expanse of intertidal region — the average tidal amplitude is about 17 feet.

Ninety-one taxa are recorded from South Wolf Island, including 27 Chlorophyceae, 26 Phaeophyceae and 38 Rhodophyceae. This compares with 114 taxa recorded from Campobello Island during a three year study (Stone, et al., in press). Future trips will include the other Wolf islands and may yield additional species.

The algae were collected and preserved in a brine solution for laboratory identification and processing. Voucher specimens are deposited in the Herbarium of the University of New Hampshire and Southampton College, Long Island, New York. The nomenclature of Parke and Dixon (1968) has been applied in most cases, except for the Acrochaetiaceae (Papenfuss, 1947).

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CHECKLIST

CHLOROPHYCEAE:
Chaetomorpha melagonium (Weber *et* Mohr) Kützing
Codiolum gregarium A. Braun
C. petrocelidis Kuckuck
C. pusillum (Lyngbye) Kjellman
Epicladia flustrae Reinke
Enteromorpha groenlandica (J. Agardh) Setchell *et* Gardner
E. intestinalis (L.) Link
E. linza (L.) J. Agardh
E. marginata J. Agardh
E. micrococca Kützing
E. minima Nägeli
Monostroma fuscum (Postels *et* Ruprecht) Wittrock forma *blyttii* (Areschoug) Collins
M. grevillei (Thuret) Whittrock
M. leptodermum Kjellman
M. pulchrum Farlow
Prasiola stipitata Suhr in Jessen
Pseudendoclonium marinum (Reínke) Aleem *et* Schulz
Rhizoclonium riparium (Roth) Harvey var. *implexum* (Dillwyn) Rosenvinge
R. tortuosum Kützing
Spongomorpha arcta (Dillwyn) Kützing
S. lanosa (Roth) Kützing
S. spinescens Kützing
Ulva lactuca L.
Urospora collabens (C. Agardh) Holmes *et* Batters
U. penicilliformis (Roth) Areschoug
U. speciosa (Carmichael) Leblond *et* Hamel
U. wormskjoldii (Mertens in Hornem) Rosenvinge
PHAEOPHYCEAE:
Agarum cribrosum (Mertens) Bory
Alaria esculenta (L.) Greville
Ascophyllum nodosum (L.) Le Jolis
Asperococcus echinatus (Mertens) Greville
Chorda tomentosa Lyngbye
Chordaria flagelliformis (O. F. Müller) C. Agardh
Desmarestia aculeata (L.) Lamouroux
Dictyosiphon foeniculaceus (Hudson) Greville
Ectocarpus confervoides (Roth) Le Jolis
Elachista fucicola (Velley) Areschoug
Fucus distichus L. ssp. *distichus* Powell
F. distichus L. ssp. *edentatus* (de La Pylaie) Powell

F. distichus L. ssp. *evanescens* (C. Agardh) Powell
F. spiralis L.
F. vesiculosus L.
Isthmoplea sphaerophora (Carmichael) Kjellman
Laminaria digitata (Hudson) Lamouroux
L. longicruris De la Pylaie
L. saccharina (L.) Lamouroux *sensu* Wilce
Leathesia difformis (L.) Areschoug
Myrionema strangulans Greville
Petalonia fascia (O. E. Müller) Kruntze
Pilayella littoralis (L.) Kjellman
Ralfsia fungiformis (Gunnerus) Setchell *et* Gardner
Scytosiphon lomentaria (Lyngbye) Link
Sphacelaria cirrosa (Roth) C. Agardh
RHODOPHYCEAE:
Ahnfeltia plicata (Hudson) Fries
Antithamnion cruciatum (C. Agardh) Nägeli
A. floccosum (Müller) Kleen
Audouinella membranacea (Magnus) Papenfuss
Bangia fuscopurpurea (Dillwyn) Lyngbye
Ceramium deslongchampsii Chauvin in Duby var. *hooperi* (Harvey) Taylor
C. rubrum (Hudson) J. Agardh
Chondrus crispus Stackhouse
Choreocolax polysiphoniae Reinsch
Clathromorphum circumscriptum (Strømfelt) Foslie
Corallina officinalis L.
Cystoclonium purpureum (Hudson) Batters
Euthora cristata (C. Agardh) J. Agardh
Gigartina stellata (Stackhouse) Batters
Halosaccion ramentaceum (L.) J. Agardh
Hildenbrandia prototypus Nardo
Kylinia alariae (Jónsson) Kylin
K. secundata (Lyngbye) Papenfuss
Lithophyllum corallinae (Crouan frat.) Heydrich
Lithothamnium glaciale Kjellman
Membranoptera alata (Hudson) Stackhouse
Petrocelis middendorfii (Ruprecht) Kjellman
Peyssonelia rosenvingii Schmitz in Rosenvinge
Phycodrys rubens (L.) Batters
Phymatolithon lenormandi (Areschoug) Adey
Plumaria elegans (Bonnemaison) Schmitz
Polyides rotundus (Hudson) Greville
Polysiphonia lanosa (L.) Tandy
P. urceolata (Lightfoot *ex* Dillwyn) Greville

Porphyra leucosticta Thuret in Le Jolis
P. linearis Greville
P. miniata (C. Agardh) C. Agardh
P. umbilicalis (L.) J. Agardh
P. umbilicalis (L.) J. Agardh f. *epiphytica* Collins
Ptilota serrata Kützing
Rhodochorton purpureum (Lightfoot) Rosenvinge
Rhodomela confervoides (Hudson) Silva
Rhodymenia palmata (L.) Greville

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REFERENCES

PAPENFUSS, G. A. 1947. Further Contributions toward an Understanding of the *Acrochaetium-Rhodochorton* Complex of the Red Algae. Univ. of the Calif. Publ. Bot. **18**:433-447.

PARKE, M. and P. S. DIXON. 1968. Checklist of British Marine Algae — Second Revision. J. mar. biol. Ass. U.K. **48**:783-832.

STONE, R. A., E. J. HEHRE, J. R. CONWAY, and A. C. MATHIESON. A Preliminary Checklist of the Marine Algae of Campobello Island, New Brunswick, Canada. Rhodora (in press)

TAYLOR, W. R. 1957. The Marine Algae of the Northeast Coast of North America. VIII & 509 pp. Univ. Michigan Press, Ann Arbor.